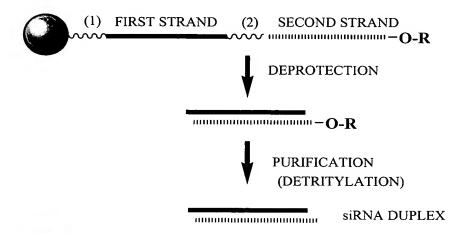
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### Figure 1



= SOLID SUPPORT

R = TERMINAL PROTECTING GROUP

FOR EXAMPLE:
DIMETHOXYTRITYL (DMT)

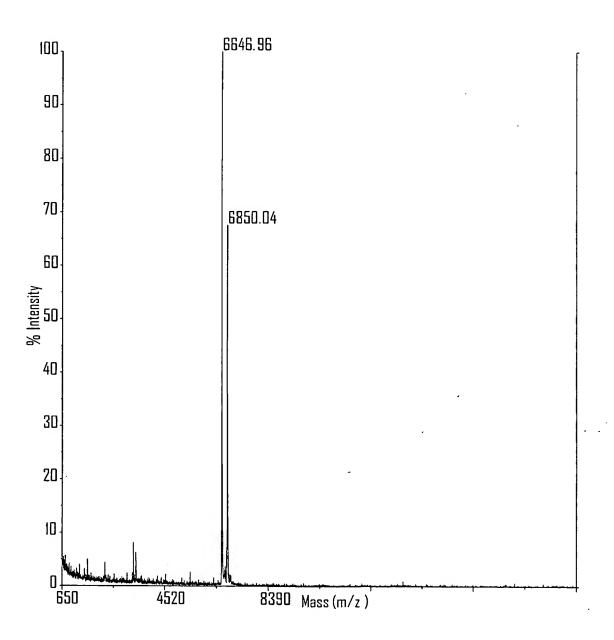
= CLEAVABLE LINKER
(FOR EXAMPLE: NUCLEOTIDE SUCCINATE OR INVERTED DEOXYABASIC SUCCINATE)

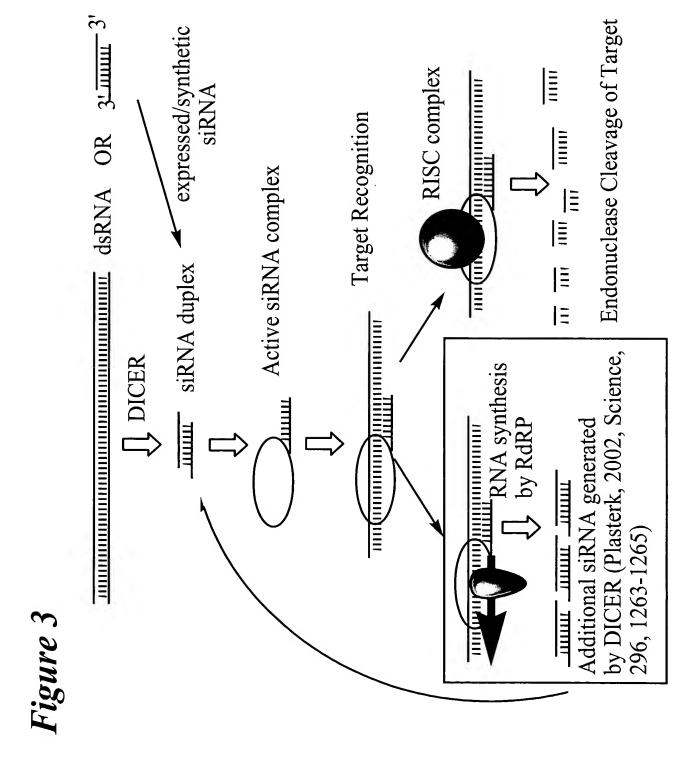
(FOR EXAMPLE: NUCLEOTIDE SUCCINATE OR INVERTED DEOXYABASIC SUCCINATE)

INVERTED DEOXYABASIC SUCCINATE LINKAGE

GLYCERYL SUCCINATE LINKAGE

## Figure 2





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### Figure 4

	SENSE STRAND (SEQ ID NO 2554) ALL POSITIONS RIBONUCLEOTIDE EXCEPT POSITIONS (N N)	)
<b>A</b>	5'- B-NNNNNNNNNNNNNNNNNNNNNNNN	-3'
	3'- L-(N <sub>s</sub> N) NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	-5' >
	ANTISENSE STRAND (SEQ ID NO 2555) ALL POSITIONS RIBONUCLEOTIDE EXCEPT POSITIONS (N N)	
-	SENSE STRAND (SEQ ID NO 2556) ALL PYRIMIDINES = 2'-FLUORO AND ALL PURINES = 2'-OM EXCEPT POSITIONS (N N	
	5'- NNNNNNNNNNNNNNNNNNNN (N <sub>s</sub> N) -	3'
B	$\begin{cases} 3'- L-(N_sN) NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN$	5' >
	ANTISENSE STRAND (SEQ ID NO 2557) ALL PYRIMIDINES = 2'-FLUORO AND ALL PURINES = 2'-O-ME EXCEPT POSITIONS (N	N)
	SENSE STRAND (SEO ID NO 2558)	)
C	SENSE STRAND (SEQ ID NO 2558) ALL PYRIMIDINES = 2'-O-ME OR 2'-FLUORO EXCEPT POSITIONS (N N)	
	<b>~</b>	-3'
		-5'
	ANTISENSE STRAND (SEQ ID NO 2559) ALL PYRIMIDINES = 2'-FLUORO EXCEPT POSITIONS (N N)	
D	SENSE STRAND (SEQ ID NO 2560) ALL PYRIMIDINES = 2'-FLUORO EXCEPT POSITIONS (N N) AND ALL PURINES = 2'-DEO	xy
	51	3'
D	<b>4.</b> • • • • • • • • • • • • • • • • • • •	5' }
	ANTISENSE STRAND (SEQ ID NO 2557) ALL PYRIMIDINES = 2'-FLUORO AND ALL PURINES = 2'-O-ME EXCEPT POSITIONS (N	N)
E	SENSE STRAND (SEQ ID NO 2561) ALL PYRIMIDINES = 2'-FLUORO EXCEPT POSITIONS (N N)	)
	5'- B-NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	3'
	$3'$ - L- $(N_sN)$ NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	5' }
	ANTISENSE STRAND (SEQ ID NO 2557) ALL PYRIMIDINES = 2'-FLUORO AND ALL PURINES = 2'-O-ME EXCEPT POSITIONS (N )	N)
	SENSE STRAND (SEQ ID NO 2560)	)
	ALL PYRIMIDINES = 2'-FLUORO EXCEPT POSITIONS (N N) AND ALL PURINES = 2'-DEOX	Y
F	<b>\</b>	3'
		5'
	ANTISENSE STRAND (SEQ ID NO 2562) ALL PYRIMIDINES = 2'-FLUORO EXCEPT POSITIONS (N N) AND ALL PURINES = 2'-DEOX	$\times$

POSITIONS (NN) CAN COMPRISE ANY NUCLEOTIDE, SUCH AS DEOXYNUCLEOTIDES

<sup>(</sup>eg. THYMIDINE) OR UNIVERSAL BASES

B = ABASIC, INVERTED ABASIC, INVERTED NUCLEOTIDE OR OTHER TERMINAL CAP
THAT IS OPTIONALLY PRESENT

L = GLYCERYL or B THAT IS OPTIONALLY PRESENT

S = PHOSPHOROTHIOATE OR PHOSPHORODITHIOATE that is optionally absent

### Figure 5

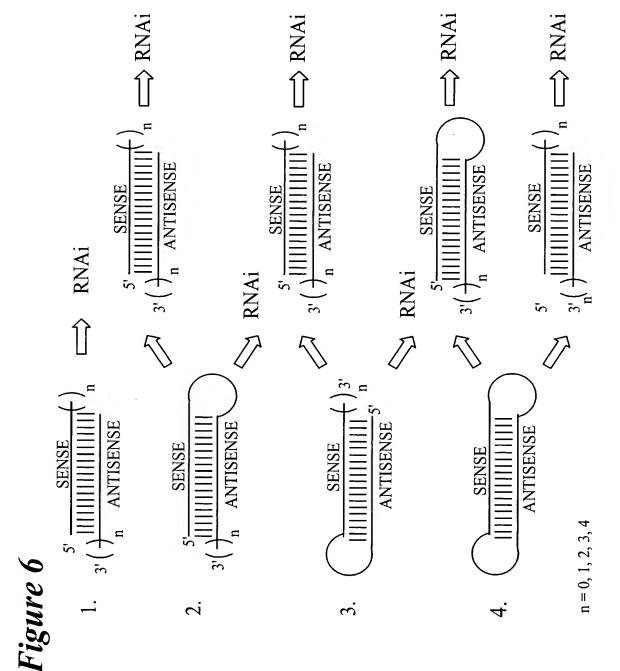
	$\mathcal{C}$		`
		SENSE STRAND (SEQ ID NO 2563)	
A	5'-	iB-UCUGAUGAUGUCAGAUAUG <i>TT</i> -iB	-3'
	3'-	L-T <sub>S</sub> TAGACUACUACAGUCUAUAC	-5'
		ANTISENSE STRAND (SEQ ID NO 2564)	
			J
		SENSE STRAND (SEQ ID NO 2565)	Ì
	5'-	u c u g <u>a</u> u g <u>a</u> u g u c <u>a</u> g <u>a</u> u <u>a</u> u g T <sub>S</sub> T	-3'
B	√ 3'-	L-T <sub>S</sub> T <sub>a</sub> g <sub>a</sub> cu <sub>a</sub> cu <sub>a</sub> c <sub>a</sub> g <sub>u</sub> cu <sub>a</sub> u <sub>a</sub> c	-5' }
		ANTISENSE STRAND (SEQ ID NO 2566)	-5
		741115E115E 5110111D (5EQ 1D 110 2500)	
			J
		SENSE STRAND (SEQ ID NO 2567)	)
C	5'-	iB-u c u G A u G A u G u c A G A u A u G T T-iB	-3'
	<b>₹</b> 3'-	L-T <sub>S</sub> T A G A c u A c u A c A G u c u A u A c	-5' >
		ANTISENSE STRAND (SEQ ID NO 2568)	
	Č		5
		SENSE STRAND (SEQ ID NO 2569)	
D	5'-	iB-u c u G A u G A u G u c A G A u A u G T T-iB	-3'
D	3'-	L-T <sub>S</sub> T <u>a g a c u a c u a c a g u c u a u a c</u>	-5'
		ANTISENSE STRAND (SEQ ID NO 2566)	
	Ĺ		J
		SENSE STRAND (SEQ ID NO 2570)	)
	5'-	iB-u c u G A u G A u G u c A G A u A u G T T-iB	-3'
${f E}$	₹ 3'-	L-T <sub>S</sub> T <u>agacuacuacagucuauac</u>	-5'
		ANTISENSE STRAND (SEQ ID NO 2566)	
		CENICE CTD AND (CEO ID NO 2500)	$\exists$
		SENSE STRAND (SEQ ID NO 2569)	
F	5'-	iB-u c u G A u G A u G u c A G A u A u G T T-iB	-3'
	<b>∫</b> 3'-	L-T <sub>S</sub> T A G A c u A c u A c A G u c u A u A c	-5' >
		ANTISENSE STRAND (SEQ ID NO 2571)	
			J
			_

lower case = 2'-O-Methyl or 2'-deoxy-2'-fluoro

italic lower case = 2'-deoxy-2'-fluoro

underline = 2'-O-methyl

ITALIC UPPER CASE = DEOXY
iB = INVERTED DEOXYABASIC
L = GLYCERYL MOIETY or iB OPTIONALLY PRESENT
S = PHOSPHOROTHIOATE OR
PHOSPHORODITHIOATE OPTIONALLY PRESENT



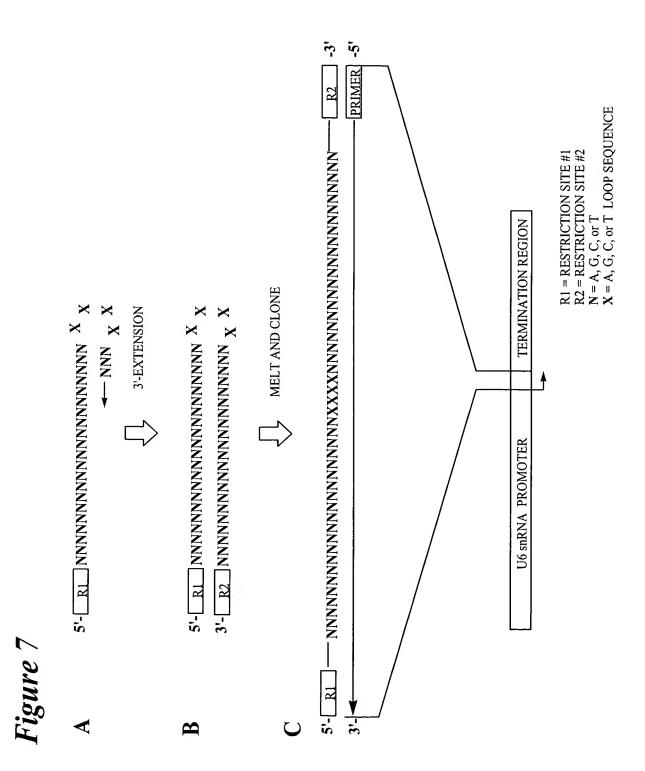
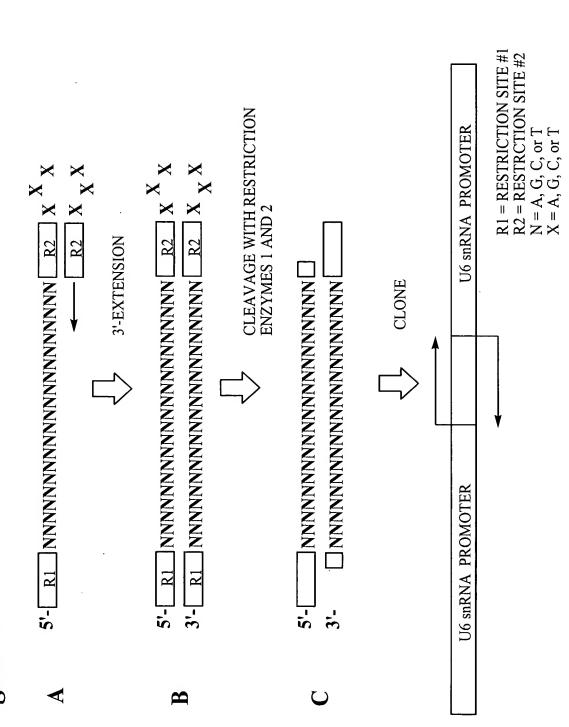
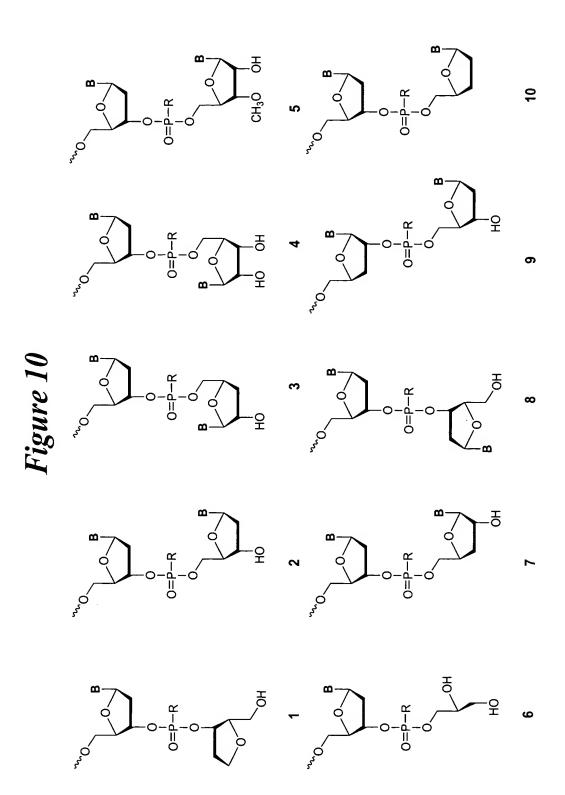


Figure 8

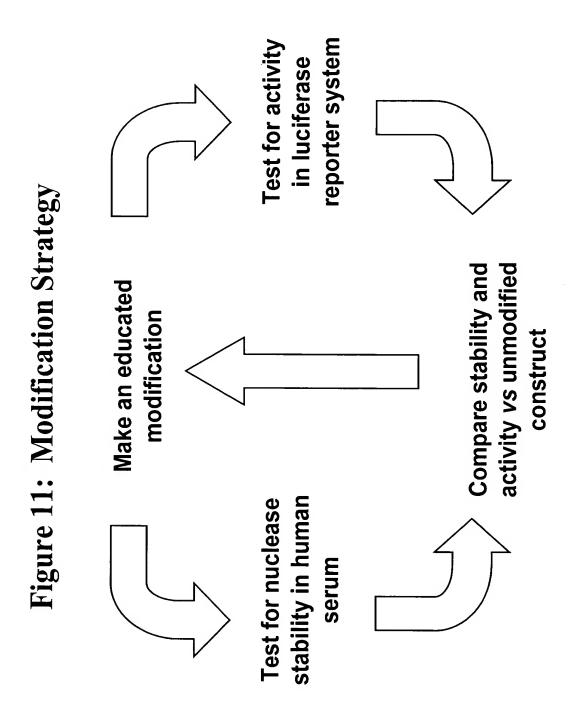


Identify efficacious target sites based on siRNA sequence Sequence siRNA Clone oligos into vector Figure 9: Target site Selection using siRNA Select cells exhibiting  $\mathbf{\omega}$ Ш desired phenotype siRNA against Target RNA sequence Synthesize oligos encoding Transduce target cells

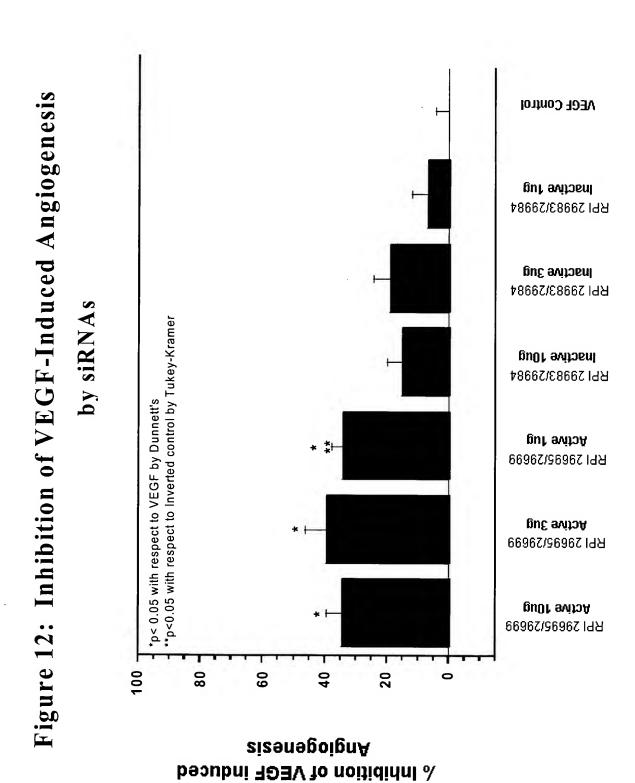
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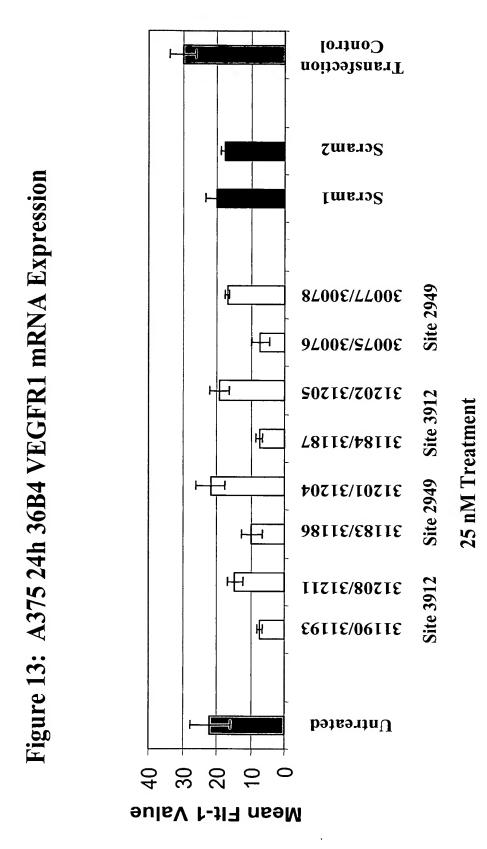
R = O, S, N, alkyl, substituted alkyl, O-alkyl, S-alkyl, alkaryl, or aralkyl B = Independently any nucleotide base, either naturally occurring or chemically modified, or optionally H (abasic).



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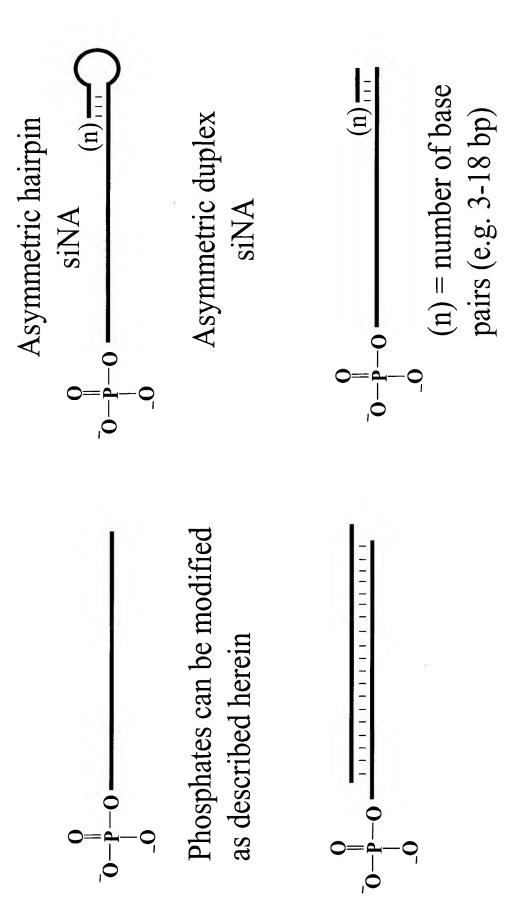


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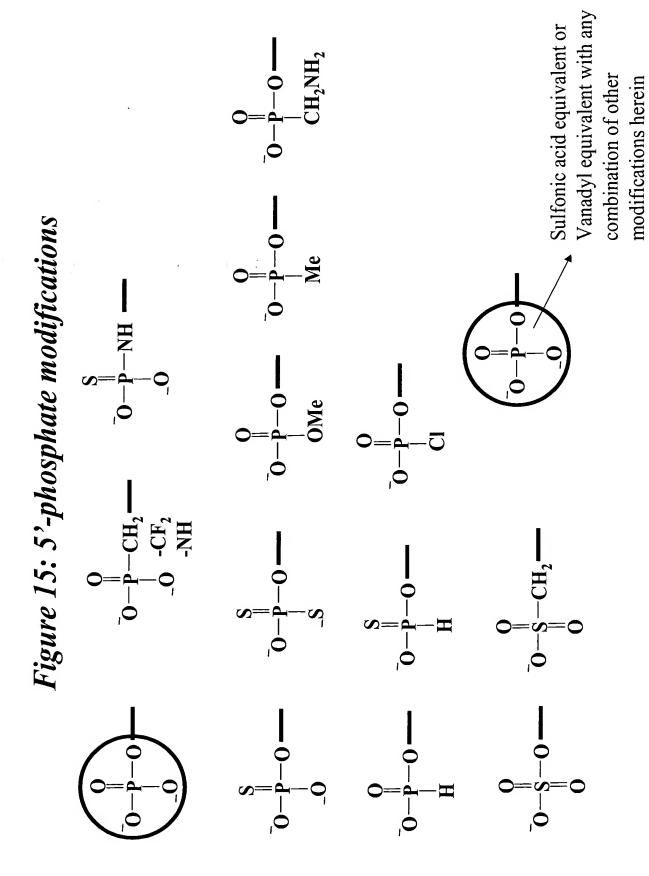
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# Figure 14: Phosphorylated siNA constructs



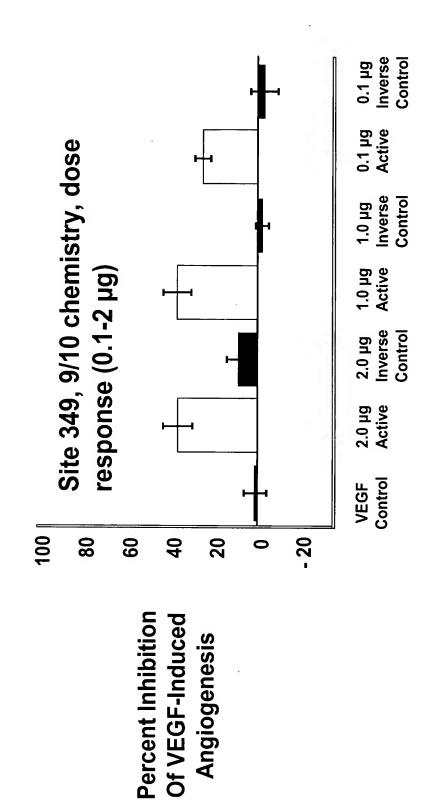
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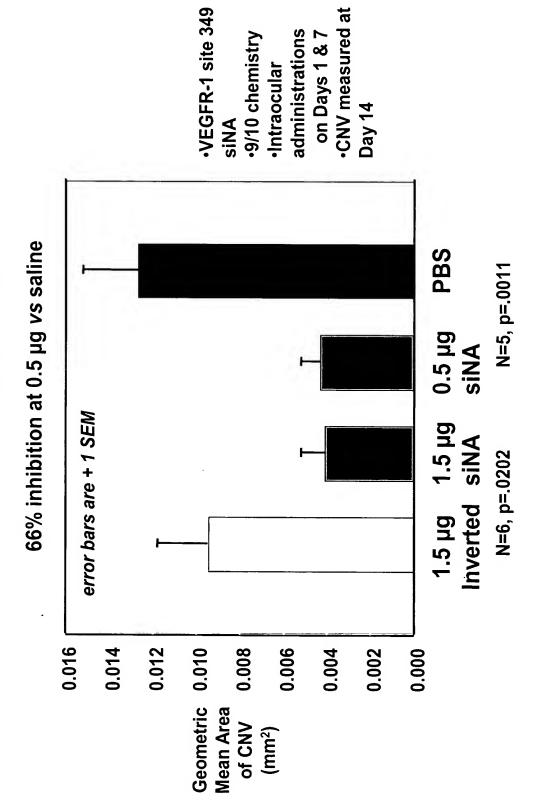
Figure 16: siNA Targeting VEGFR-1 Inhibits VEGF-Induced Rat Corneal Angiogenesis



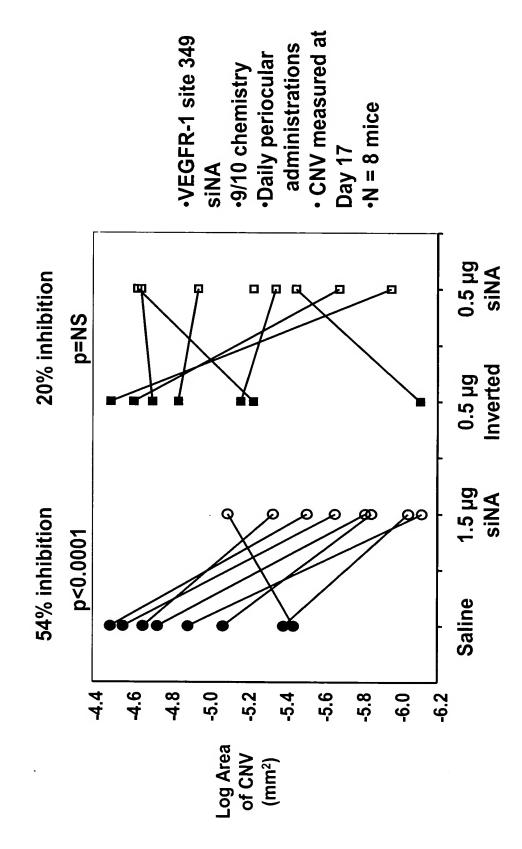
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## anti-VEGFR-1 siNA (intraocular administration) Figure 17: Inhibition of Mouse CNV with

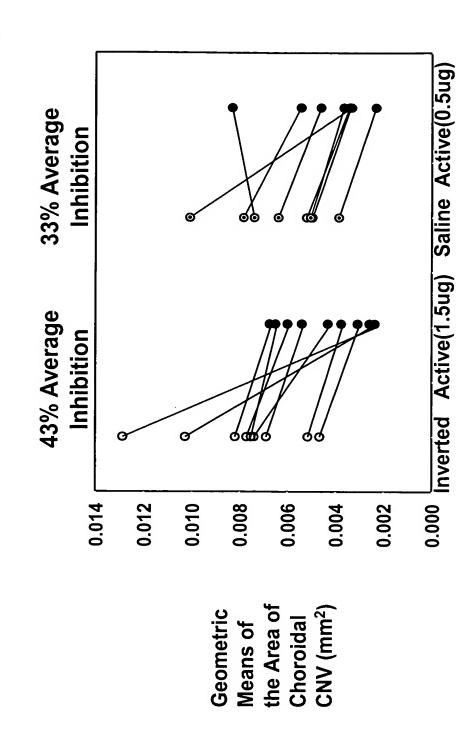
57% inhibition at 1.5 µg vs inverted control



anti-VEGFR-1 siNA (periocular administration) Figure 18: Inhibition of Mouse CNV with



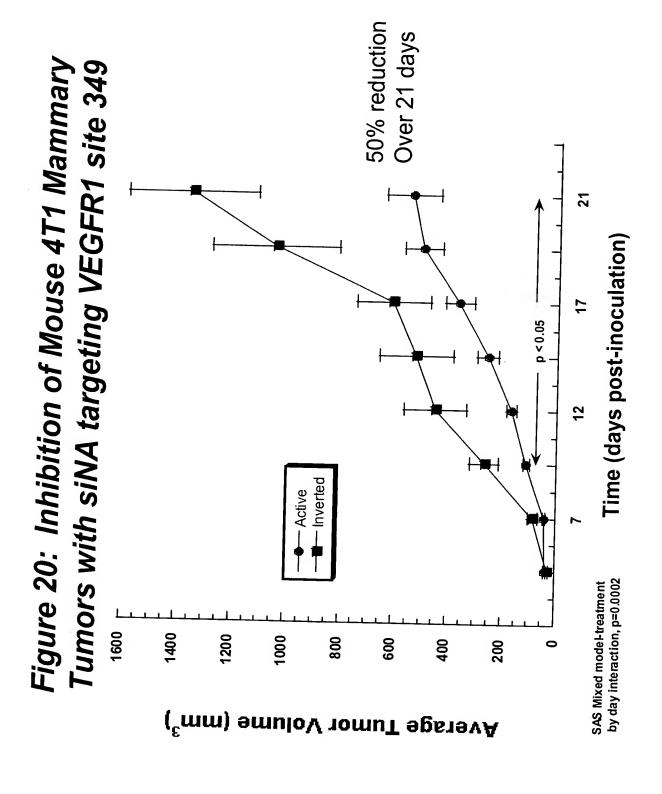
anti-VEGFR-1 siNA (periocular administration) Figure 19: Inhibition of Mouse CNV with



N=8 mice, p=.0187

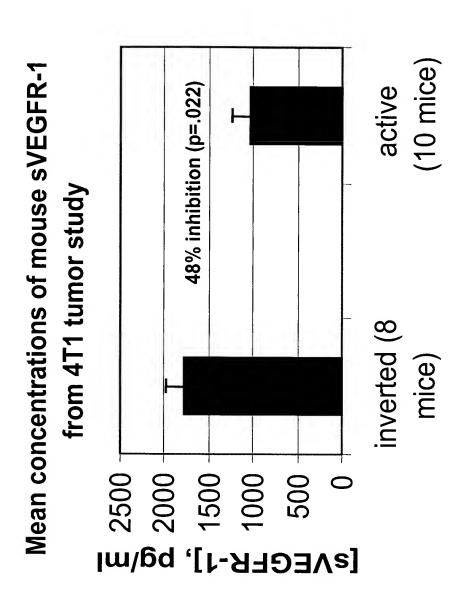
N=9 mice, p=.0034

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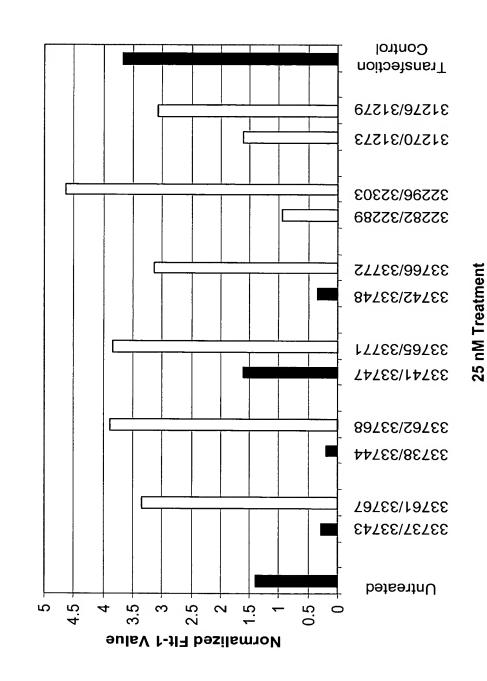
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Tumors with siNA targeting VEGFR1 site 349 Figure 21: Inhibition of Mouse 4T1 Mammary Decreased level of Soluble VEGFr1



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Figure 22A: Inhibition of VEGFR1 RNA expression with siNAs targeting VEGFR1 and VEGFR2 homologous sequences



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Figure 22B: Inhibition of VEGFR1 RNA expression with siNAs targeting VEGFR1 and VEGFR2 homologous sequences

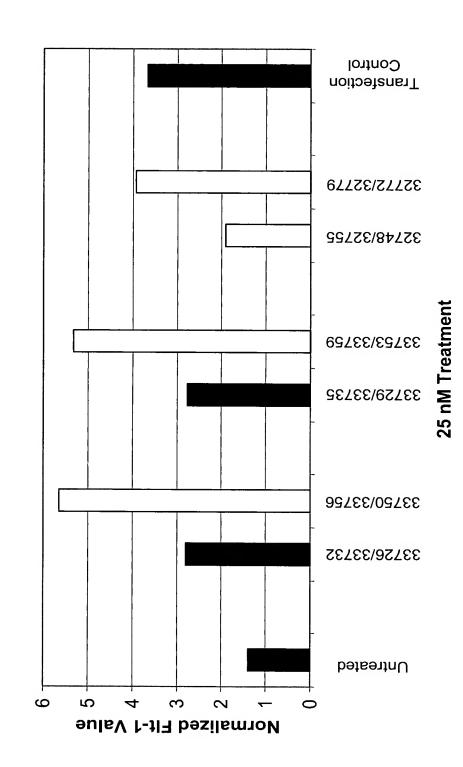
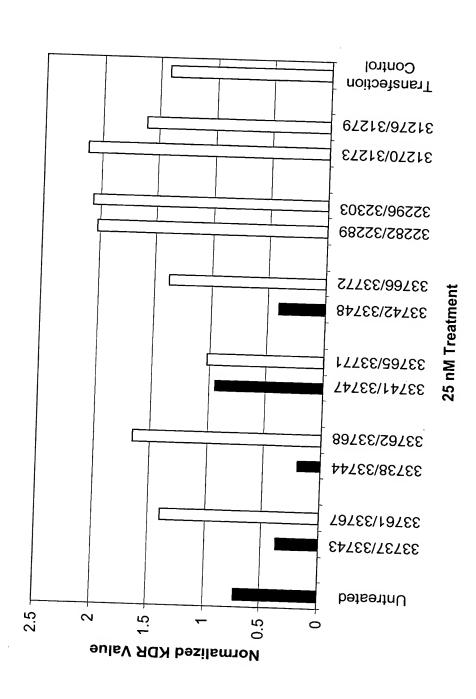
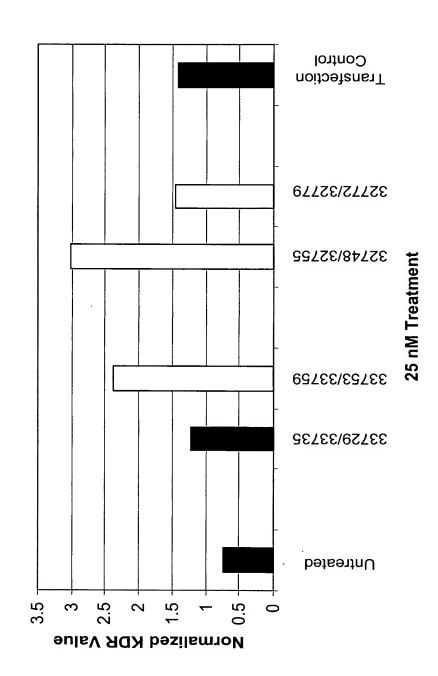


Figure 23A: Inhibition of VEGFR2 RNA expression with siNAs targeting VEGFR1 and VEGFR2 homologous sequences



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Figure 23B: Inhibition of VEGFR2 RNA expression with siNAs targeting VEGFR1 and VEGFR2 homologous sequences



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